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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/784,107

02/20/2004

Mark G. Romo

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27367

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07/27/2006

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EXAMINER

SONG, SARAH U

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/784,107

Applicant(s)

ROMO ET AL.

Examiner

Sarah Song

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 37-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 37-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. Applicant's communication filed on May 5, 2006 has been carefully considered and placed of record in the file. Claim 1 is amended. Claims 26-36 have been canceled. Claims 1-25 and 37-39 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 12 and 37 rejected under 35 U.S.C. 102(e) as being anticipated by Bellman et al. (U.S. Patent 2003,0012545 previously relied upon).**

4. Regarding claim 1, Bellman et al. discloses an electrically variable optical attenuator comprising: a pair of waveguides 12 and 14, each having a terminus, wherein at least one terminus is movable relative to the other terminus upon urging from an electrically driven actuator; and a sensor disposed relative to the pair of waveguides to sense a variable that affects attenuation, and provide a sensor output related to the variable (i.e. the feedback system receives an attenuation signal and outputs the information to control the displacement). See ¶0049.

5. Regarding claims 12 and 37, Bellman et al. discloses the claimed invention as discussed above with regard to claim 1, and additionally discloses a controller adapted to compensate an attenuation level based on the sensed variable. See ¶0049, lines 6-9.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 2-11, 13-25, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellman et al.**

8. Regarding claims 2-11, 13-19, 23-25, 38 and 39 Bellman et al. does not expressly disclose the various types of sensors or anticipated parameters. However, sensors for sensing an anticipated parameter, such as temperature sensors (including variable capacitor devices and resistance temperature devices), wavelength sensors, acceleration sensors, and vibration sensors are well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide any of the various sensors in the device of Bellman et al. for the purpose of evaluating the efficacy of the attenuator of Bellman et al. and providing proper feedback control to obtain the desired attenuation, and since Applicant has not disclosed that the particular sensors/sensed parameter solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any type of sensor.

9. Regarding claims 20-22, Bellman et al. does not expressly disclose the controller including memory containing a look-up table, a multidimensional look-up table, or coefficients for a function relating the sensed variable to attenuation. However, controllers including memory containing look-up tables, multidimensional look-up tables, or coefficients for a

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function relating a sensed variable to a desired result were well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the controller containing the claimed memory for the purpose of simplifying the control process.

Response to Arguments

10. Applicant's arguments filed May 5, 2006 have been fully considered but they are not persuasive. Applicant asserts that Bellman does not teach claim. Applicant further states that Bellman that the feedback system may receive an attenuation signal and power signal as stated in (¶0049); that the attenuation signal is merely the original control signal, and does not sense a variable that affects attenuation; and the only feedback signal in Bellman is due to comparing the difference between power signals from the input and output lensed fibers, that difference not affecting attenuation, but rather affected by attenuation.

11. The Examiner agrees that the feedback system receives an attenuation signal and a power signal. The Examiner also agrees that the feedback signal is due to comparing the difference between power signals from the input and output lensed fibers. However, it is noted that the feedback signal is also related to the attenuation signal as stated in lines 9-10 of ¶0049. The Examiner agrees that the attenuation signal does not sense a variable. In fact, the attenuation signal is the variable. Therefore, at the very least, the attenuation signal is a variable sensed by the sensor (feedback system). The attenuation signal is also the variable that affects attenuation. The sensor thus provides a sensor output related to the attenuation signal (variable) received by the sensor (feedback system) ("Based on the attenuation signal...the feedback system would then

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determine the amount by which the lensed fibers 4, 6, should be displaced to achieve the specified level of attenuation”, lines 13-16 of ¶0049).

12. Therefore, Applicant’s arguments are not persuasive.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Song whose telephone number is 571-272-2359. The examiner can normally be reached on M-Th 7:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sarah Song
Primary Examiner
Group Art Unit 2874